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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,894	08/27/2003	Ermanno Filippi	9526-18	5103

30448 7590 03/09/2006

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EXAMINER	
BHAT, NINA NMN	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,894	FILIPPI ET AL.	
	Examiner	Art Unit	
	N. Bhat	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 August 2003* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments have been fully and carefully considered. Applicant is advised that on the first page of the response applicant has incorrectly referred to the 10/407,598 which is a materially different co-pending application. Applicant's timely filed and properly executed Terminal Disclaimer has been accepted. Accordingly the obviousness type double patenting rejection is rendered moot. With respect to applicant's arguments regarding the Filippi EPO 1,153,653 and Haldor WO 90/092234 patents this has been found persuasive. Applicant's amendments to the claims overcome all 112, second paragraph rejections made.

2. A new ground of rejection follows:

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how a pseudo-isothermal chemical reactor is further limited or what structural element of the apparatus comprises " a predeterminded reaction environment.". The limitation does not describe the apparatus nor does it further limit the apparatus. Suitable explanation and/or correction is required.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Filippi et al. EP 1 236 505.

Filippi et al. teach the invention substantially as claimed. Filippi et al. teach a heat exchange which includes a tubular element, chamber defined within the tubular element for being past through by a first flow of a heat exchange operating fluid, a fluid distributor duct, a fluid duct connected to the tubular element and addition distributor for a second flow of the operating fluid in fluid communication with the chamber and feed duct for the second flow of operating fluid in communication with the additional distributor. Applicant's attention is directed to note Figures 1 and 4 of Filippi et al. wherein chamber 5 is defined for communicating on one side with a heat exchange operating fluid through a fluid inlet connector 6, two or more distributors 8,9 are fastened to one of the walls of the heat exchanger 1. The distributors 8 and 9 are in fluid communication with chamber5 of the heat exchanger 1 with a duct 10 for feeding operating fluid through connectors 11 and 12. In Figure 4, the heat exchanger includes a feed duct of the second flow of operating fluid.[Note Column 5, paragraph [0042, Column 6, paragraphs [0043] to [0051]]. Filippi et al. Teach applicant's method as claimed and specifically recites feed a first flow of heat exchange operating fluid at a specific inlet temperature in the heat exchanger and passing the fluid through the heat exchanger and feed into the heat exchanger a second flow of operating fluid at a respective predetermined inlet temperature.

However, Filippi et al. do not teach specifically a tubular heat exchanger.

Filippi et al. teach a heat exchanger for carrying out chemical reactions in pseudo-isothermal condition in which the reaction temperature is controlled in a narrow range of values around a predetermined optimum value. The method and the apparatus do provide a heat exchange which functions equivalently to applicant's tubular reactor. In fact, the only reason which Filippi et al.'505 teaches that the heat exchanger is a flat parallelepiped configuration is for design choice reasons or for simplicity. This does not preclude that a tubular heat exchanger could not be then obviously substituted therefore for the plate type or parallepiped heat exchanger. Applicant's specification has been carefully examined, and there is no reason given by applicant that a parallelepiped shaped heat exchanger could not be substituted for the tubular type heat exchanger and if there is criticality in the selection of the type of heat exchanger used the burden shifts to applicant to provide evidence to the contrary. Therefore, it is maintained that given the teachings of Filippi et al.'505 applicant's method and apparatus is rendered as a whole obvious to one having ordinary skill in the art and the heat exchanger and method of operating the heat exchanger of Filippi et al.'505 provides the same results and the only difference being that the heat exchanger is a parallelepiped whereas applicant claims a tubular heat exchanger both would function equivalently and an obvious substitution and design choice.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N. Bhat
Primary Examiner
Art Unit 1764